#### § 1237.22

and published and unpublished catalogs, inventories, indexes, and production files and similar documentation created in the course of audiovisual production. Establish and communicate agency-wide, clear captioning standards, procedures, and responsibilities.

- (e) Maintain current and accessible documentation identifying creators of audiovisual products, their precise relationship to the agency, and the nature and status of copyright or other rights affecting the present and future use of items acquired from sources outside the agency. (See §1222.32 of this subchapter for requirements to ensure agency ownership of appropriate contractor produced records.)
- (f) Create unique identifiers for all audiovisual records (e.g., for digital files, use file naming conventions), that clarify connections between related elements (e.g., photographic prints and negatives, or original edited masters and dubbing for video and audio recordings), and that associate records with the relevant creating, sponsoring, or requesting offices.
- (g) Maintain temporary and permanent audiovisual records separately.
- (h) Require that personnel wear white lint-free cotton (or other approved) gloves when handling film.

# §1237.22 What are special considerations in the storage and maintenance of cartographic and related records?

Agencies must:

- (a) Maintain permanent and unscheduled cartographic, architectural, and engineering records in an environment that does not exceed 70 degrees Fahrenheit and with relative humidity under 50%.
- (b) Create an identification scheme for each series and assign unique identification designations to each item within a series.
- (c) Maintain lists or indexes for each series with cross-references to related textual records.
- (d) Avoid interfiling separate series of maps, charts, or drawings, and file permanent cartographic and architectural records separately from temporary series unless hand-corrected versions have been systematically filed

with other published maps in a central or master file.

- (e) Avoid rolling and folding maps and drawings. Store permanent maps and drawings flat in shallow drawer map cases in acid-free folders.
- (f) Do not laminate original oversize records. Consult the National Archives and Records Administration, Preservation Programs, (NWT), 8601 Adelphi Road, College Park, MD 20740, phone number (301) 837–1785 for preservation, storage, and treatment options.

#### § 1237.24 What are special considerations for storage and maintenance of aerial photographic records?

- (a) Mark each aerial film container with a unique identification code to facilitate identification and filing.
- (b) Mark aerial film indexes with the unique aerial film identification codes or container codes for the aerial film that they index. Also, file and mark the aerial indexes in such a way that they can easily be retrieved by area covered.

## § 1237.26 What materials and processes must agencies use to create audiovisual records?

Agencies must:

- (a) For picture negatives and motion picture preprints (negatives, masters, and all other copies) of permanent, long-term temporary, or unscheduled records, use polyester base media and process in accordance with industry standards as specified in ISO 18906 (incorporated by reference, see § 1237.3).
- (1) Ensure that residual sodium thiosulfate (hypo) on newly processed black-and-white photographic film does not exceed 0.014 grams per square meter.
- (2) Require laboratories to process film in accordance with this standard. Process color film in accordance with the manufacturer's recommendations.
- (3) If using reversal type processing, require full photographic reversal; *i.e.*, develop, bleach, expose, develop, fix, and wash.
- (b) Avoid using motion pictures in a final "A & B" format (two precisely matched reels designed to be printed together) for the reproduction of excerpts or stock footage.
- (c) Use only industrial or professional video and audio recording equipment,

new and previously unrecorded magnetic tape stock and blank optical media (e.g., DVD and CD), for original copies of permanent, long-term temporary, or unscheduled recordings. Limit the use of consumer formats to distribution or reference copies or to subjects scheduled for destruction. Avoid using videocassettes in the VHS format for use as originals of permanent or unscheduled records.

- (d) Record permanent, long-term, temporary, or unscheduled audio recordings on optical media from major manufacturers. Avoid using cassettes as originals for permanent records or unscheduled records (although they may be used as reference copies).
- (e) For born-digital or scanned digital images that are scheduled as permanent or unscheduled, a record (or master) version of each image must be comparable in quality to a 35 mm film photograph or better, and must be saved in Tagged Image File Format (TIFF) or JPEG File Interchange Format (JFIF, JPEG). For more detailed requirements on image format and resolution, see §1235.48(e) of this subchapter. For temporary digital photographs, agencies select formats that they deem most suitable for fulfillment of business needs.

### § 1237.28 What special concerns apply to digital photographs?

Digital photographs, either originating in digital form ("born-digital") or scanned from photographic prints, slides, and negatives, are subject to the provisions of this part and the requirements of 36 CFR part 1236, and NARA guidance for transfer of digital photographs located on the following NARA Web page—http://www.archives.gov/records-mgmt/initiatives/digital-photographs, agency and contractor personnel must:

- (a) Schedule digital photographs and related databases as soon as possible for the minimum time needed for agency business and transfer the records promptly according to the disposition instructions on their records schedule.
- (b) Select image management software and hardware tools that will meet long-term archival requirements, including transfer to the National Ar-

- chives of the United States, as well as business needs. Additional information and assistance is available from the National Archives and Records Administration, Modern Records Program (NWM), 8601 Adelphi Road, College Park, MD 20740, phone number (301) 837–1738.
- (c) When developing digital image storage strategies, build redundancy into storage systems, backing up image files through on-line approaches, offline, or combinations of the two. (See also electronic storage requirements in § 1236.28 of this subchapter).
- (d) For scanned digital images of photographic prints, slides, and negatives that are scheduled as permanent or unscheduled, document the quality control inspection process employed during scanning.
- (1) Visually inspect a sample of the images for defects, evaluate the accuracy of finding aids, and verify file header information and file name integrity.
- (2) Conduct the sample using a volume sufficiently large to yield statistically valid results, in accordance with one of the quality sampling methods presented in ANSI/AIIM TR34 (incorporated by reference, see §1237.3). (See also ISO 2859–1 (incorporated by reference, see §1237.3).)
- (e) For born-digital images scheduled as permanent, long-term temporary, or unscheduled, perform periodic inspections, using sampling methods or more comprehensive verification systems (e.g., checksum programs), to evaluate image file stability, documentation quality, and finding aid reliability. Agencies must also establish procedures for refreshing digital data (recopying) and file migration, especially for images and databases retained for five years or more.
- (f) Designate a record set of images that is maintained separately from other versions. Record sets of permanent or unscheduled images that have already been compressed once (e.g., compressed TIFF or first-generation JPEG) must not be subjected to further changes in image size.
- (g) Organize record images in logical series. Group permanent digital images separately from temporary digital images.